

Senate Hearings

Before the Committee on Appropriations

Department of the Interior and Related Agencies Appropriations

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PART 3 (Pages 1-847)

- ✓ ADVISORY COUNCIL ON HISTORIC PRESERVATION
- DEPARTMENT OF ENERGY
- DEPARTMENT OF THE INTERIOR
- INDIAN HEALTH SERVICE
- ✓ INSTITUTE OF MUSEUM SERVICES
- ✓ NATIONAL CAPITAL PLANNING COMMISSION
- ✓ NATIONAL ENDOWMENT FOR THE ARTS
- ✓ NATIONAL ENDOWMENT FOR THE HUMANITIES
- OFFICE OF THE FEDERAL INSPECTOR FOR THE ALASKA NATURAL
GAS TRANSPORTATION SYSTEM
- ~~SMITHSONIAN INSTITUTION~~ 251
- ✓ U.S. HOLOCAUST MEMORIAL COUNCIL



DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1983

TUESDAY, MAY 4, 1982

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 8:36 a.m., in room 1318, Everett McKinley Dirksen Senate Office Building, Hon. James A. McClure (chairman) presiding.

Present: Senators McClure and Hatfield.

SMITHSONIAN INSTITUTION

STATEMENT OF S. DILLON RIPLEY, SECRETARY

ACCOMPANIED BY:

PHILLIP S. HUGHES, UNDER SECRETARY
CHARLES BLITZER, ASSISTANT SECRETARY FOR HISTORY AND ART
DAVID CHALLINOR, ASSISTANT SECRETARY FOR SCIENCE
JULIAN T. EUELL, ASSISTANT SECRETARY FOR PUBLIC SERVICE
JOHN F. JAMESON, ASSISTANT SECRETARY FOR ADMINISTRATION
PAUL N. PERROT, ASSISTANT SECRETARY FOR MUSEUM PROGRAMS
CHRISTIAN C. HOHENLOHE, TREASURER
TOM L. PEYTON, DIRECTOR, FACILITIES SERVICES
THEODORE H. REED, DIRECTOR, NATIONAL ZOOLOGICAL PARK
JON E. YELLIN, DIRECTOR, OFFICE OF PROGRAMING AND BUDGET

PREPARED STATEMENT

Senator McCLURE. Good morning. This is the time scheduled to review the fiscal year 1983 budget estimates for the Smithsonian Institution, the Holocaust Memorial Council, and the National Advisory Council on Historic Preservation.

We will begin with the Smithsonian Institution. The fiscal year 1983 budget request for the Smithsonian totals \$192,610,000, an increase of \$50,076,000 over the fiscal year 1982 appropriations to date.

Secretary Ripley, if you would first introduce your associates, you may then proceed to highlight your opening statement, the full text of which will, of course, be included in the record.

[The statement follows:]

STATEMENT OF S. DILLON RIPLEY

First, Mr. Chairman, I would like to express my real appreciation to you and the Committee for your most understanding consideration of our FY 1982 budget request. With this understanding and through a series of reviews and cost reduction measures, we have been able to cope with our most serious financial problems. These problems stemmed mainly from the possibility that the Institution would have to absorb the full amount of the FY 1982 pay raises. For the thinned-down Smithsonian, this created a potential financial problem of \$4.6 million. Our initial response to this situation was to freeze all hiring and curtail travel and equipment purchases pending the results of a comprehensive base review. This review involved self-assessments by each of our activities of their use of resources, as well as evaluations of the value and effectiveness of our central support units. As a result of this Institutional review, we have been able to shift resources, within the limits of the reprogramming authority granted by this Committee, in order to meet the majority of our most pressing problems. Recent favorable action by the Office of Management and Budget on a supplemental appropriation of \$2.3 million, if enacted by the Congress, will allow us to fund essential hires and other necessary expenses for the balance of the year. While we have been forced, most regrettably, to limit our extended summer hours schedule in 1982 to two of our most popular attractions, the National Air and Space Museum and the National Zoological Park, and it has been necessary to curtail several of our programs, we will be able to get through the year without more drastic actions affecting public service.

FY 1983 Budget Priorities

The budget request which we are presenting to you today is a product of the Institution's response to the financial stringencies required of Federal activities. In developing priorities for the FY 1983 budget request to the Office of Management and Budget last spring, I urged the Institution's managers to concern themselves with the basic and essential care, maintenance and security of our possessions - the 78 million works of art, technological and cultural objects, and natural history specimens that comprise the National Collections -- and our museums, galleries and other buildings that have a replacement value of over one billion dollars. This budget request specifically addresses those priorities. There is provision for significantly enhancing the protection of the collections through a comprehensive program of security improvements, including further work on the Institution's proprietary electronic security and fire alarm system. A major priority also is the continuation of a strong restoration and renovation and maintenance program that will assure the structural integrity of Smithsonian buildings. We are seeking a further increment for equipping and operating the Museum Support Center, the construction of which is presently ahead of schedule and within budget.

Construction monies are requested for the Quadrangle project whose main theme is peace through intercultural understanding. The proposed resources will be used to construct new facilities for a Center for African, Near and Far Eastern Culture and Art in association with the Freer Gallery of Art and the Museum of African Art. Combined with the galleries will be temporary exhibit areas, associates activities, and seminars and discussion areas for this arc of nations from Africa to the western Pacific. The project will be jointly financed by equal shares of appropriated and nonappropriated funds.

Self Help at the Smithsonian

The joint financing of the Quadrangle construction represents one facet of the productive partnership between the Federal government and the Smithsonian's nonappropriated resources. We are very proud of this tradition and believe it to be integral to the success of the Institution.

Over the past several years, mainly through the favorable results of our auxiliary activities, we have been able to finance, in full or in part, several programs, thereby reducing the need for federal appropriations. These are fully explained in our budget document, but a few bear repeating. Since 1978, the Board of Regents has approved the use of two million dollars a year for the Institution's Collections Acquisition, Scholarly Studies and Educational Outreach Program. We hope to be able to increase this allocation to two and one-half million dollars annually beginning in FY 1983 because of the inclusion of the Museum of African Art. Through February 1982 over four million dollars

has been expended for a total of 15 important acquisitions, including major sculptures, paintings, fossil collections, a quartet of signed 18th century stringed instruments, scrolls of Chinese calligraphy, collections of Mexican masks and of historic American printing type. Approximately two million dollars has been used to support 100 special research projects which have led to 88 publications, completed or in-progress. And \$2.4 million has supported 81 educational outreach activities that have extended the museum experience for thousands of individuals, including the disabled and the elderly.

A second program financed with Trust funds since FY 1979 is the Institution's visiting scholar and fellowship program. This program, previously supported with federal appropriations, is now funded with nonappropriated Trust funds at the annual level of \$1.1 million dollars. Smithsonian fellowships serve the national academic community and benefit the Institution's own research staff. Since 1979, 480 awards have been made to fellows from 180 colleges and universities. Intellectual exchange typically continues beyond the fellowship year, through lasting collaborations, correspondence, visits and joint publications.

In total, for FY 1983, we are forecasting that a net amount of \$15 million will be realized from our auxiliary and other unrestricted Trust fund activities. In addition to the uses described above, we expect to apply the monies toward operating allotments of the Cooper-Hewitt and other bureaus; administrative and support costs; research, exhibitions, education and other purposes of the bureaus; the Quadrangle project; and, funds permitting, the Institution's unrestricted endowment.

FY 1982 Accomplishments

In general, Mr. Chairman, with your assistance, the Smithsonian continues to be a healthy, energetic Institution as evidenced by our recent accomplishments.

Collections Management

We are pleased to report that construction of the Museum Support Center is 60 percent complete. The project is on schedule toward a beneficial occupancy date of January 1983. Inventories in all museums including the special inventory programs initiated in FY 1979 at the National Museum of Natural History/Museum of Man, National Museum of American History and the Cooper-Hewitt Museum are actively continuing in FY 1982. In each of these museums, inventory standards and methods, including data gathering and recording systems and collection condition reports, have been developed. By the end of FY 1981, the National Museum of Natural History/Museum of Man had created and computerized more than 2,500,000 inventory and catalogue records. The National Museum of American History had inventoried and created inventory records for 8,500,000 objects and the Cooper-Hewitt did the same for 134,000 objects. Following an initial completion date of June 1983, updating, reconciling, and refining the inventories will be a continuing Institutional priority.

Research

Original research in the sciences, history and art continues to form the core of all Smithsonian programs. Significant progress occurred in FY 1982 in furthering knowledge in several fields of science at the Institution. Among the more noteworthy accomplishments were the participation by two Smithsonian scientists in an expedition to Antarctica. A geologist from the Smithsonian Astrophysical Observatory and a botanist from the National Museum of Natural History spent several months in the region as part of a national team attempting to unlock the mysteries of this remote continent. Over 300 meteorites were collected and are now being analyzed. The group also brought back a collection of lichens, a plant consisting of a fungus and an algae, tolerant of harsh growing conditions. Preliminary analysis indicates that these plants may be over 10,000 years old, making them, if confirmed, the world's oldest organisms.

Utilizing data from the Einstein Satellite and observations from the Multiple Mirror Telescope, scientists at the Smithsonian Astrophysical Observatory are developing a better knowledge of the role of quasars in the solar systems. Quasars, star-like images with enormous energy output, seem to

contribute significantly to the X-ray background in space. It is also possible for the first time to plot the distribution of quasars in time and space by using the Multiple Mirror Telescope. Such information is critical in developing current models of quasar evolution.

On earth, veterinarians and reproductive physiologists have made significant strides in understanding animal physiology to better care for and manage our living collections. Studies of blood sera of cheetahs in South Africa revealed a limited diversity of genetic variabilities, important because it was previously thought that genetic diversity was the rule in natural populations with wide geographic distribution. Also significant was the artificial insemination of the female giant panda. Aided by colleagues from the London Zoo, the National Institute of Health, and the Children's Hospital Medical Center, the female was inseminated during ovulation. For the first time, a panda's ovaries were observed during estrus by a laparoscope.

Continuing efforts at both the Smithsonian Tropical Research Institute and the Chesapeake Bay Center on temperate and tropical forests have yielded new data on the workings of these complex ecosystems. New efforts in the photosynthetic physiology of tropical plants are yielding important findings of the role that limited sunlight plays on plant growth on the forest floor. At the Bay Center, scientists have documented the relationship between migratory birds and their habitat requirements in the forests of the Eastern United States. More detailed studies should yield the necessary data for proper forest management that will assure genetic diversity for the survival of commercially important plants and animals.

Important history and art research efforts in FY 1982 include an archeological expedition to Kodlunarn Island on Frobisher Bay in Canada, documenting Martin Frobisher's voyages to the Canadian arctic in 1576-78 with significant new findings; an exploration of the contemporary fine arts in the State of Idaho in preparation for their possible presentation in an exhibition to be scheduled for 1983 or early 1984; an historic review of Washington, D.C. artists from 1880-1915 in preparation for an exhibition of paintings in the fall of 1983; continued research and editing toward the publication of Volume 5 of The Papers of Joseph Henry; preparation for publication of an annotated volume of "The Quartermaster's Manual of 1865;" and a study of the reed weaving technology of the Northern Paiute Indians of Western Nevada.

Notable publications in history and art so far this fiscal year include Science in America: A Documentary History, 1900-1939; The History of Science and Technology in The United States: A Critical and Selective Bibliography; a book on traditional pottery making, The Meaders Family: North Georgia Potters; a major book on a important American modernist, Ashile Gorky: The Implications of Symbols; studies of Islamic celestial globes and the pipe organs of Mexico City cathedrals; More than Meets the Eye, a comprehensive history of the Cooper-Hewitt collections; a study of "Kuba" art (from Zaire); the volume Masterpieces of Chinese Calligraphy in American and European Collections; an updated "Illustrated Checklist" of the National Portrait Gallery's permanent collection; and Esin Atıl's book, Kalila wa Dimna: Fables from a Fourteenth-Century Manuscript and the catalogue "Renaissance of Islam: Art of the Mamluks" from the exhibit that was displayed in the Evans Gallery at the National Museum of Natural History.

Exhibitions

There have been several popular exhibition openings this past fiscal year. Among them is the renovated Dinosaur Hall at the Natural History Museum, which is proving to be a most entertaining and educational exhibition. Special features include a time column with illustrations depicting the story of evolution, a giant flying reptile called a pterosaur with a forty foot wingspan, and monoliths, stationed on the upper level, that illustrate the use of fossils in industry. The monoliths and other exhibits on that level were paid for by funds donated by the corporate sector.

Our Thomas M. Evans Special Exhibits Gallery in the Natural History Building opened on July 8, 1981 with the exhibition "5000 Years of Korean Art." This outstanding show was followed by the "Hopí Kachina Spirit of Life" exhibition which interpreted the unique culture, religion and philosophy of the Hopí people; and smaller exhibits on deep ocean photography and a collection of works

by Edward Curtis. Scheduled for June 1982 is a fascinating show on the Bering Strait Eskimo which will contain approximately 500 objects collected during the 1880s by Edward William Nelson, a museum collaborator with the Natural History Museum. These and other shows, made available partially through outside funding, are affording our visitors the opportunity to view varied and exciting exhibitions that would not have been possible without the Evans Gallery.

With support from appropriated funds totaling \$750 thousand in FY 1981 and \$840 thousand in FY 1982 the "Major Exhibition Program" opened two exhibitions this year. The first of these "George Washington, A Figure Upon the Stage," occupies 9,000 square feet of exhibit space at the National Museum of American History. It commemorates the 250th anniversary of our first President's birth by bringing together over 600 objects that help recapture a sense of his life and the manner in which the American people viewed his character and appearance.

The other "major exhibition" entitled "Celebration: A World of Art and Ritual," currently is at the Renwick Gallery. The numerous striking and exquisite objects assembled for this show from nine Smithsonian museums illustrate a rich diversity of ceremonial and ritual events and the forces that move humankind to celebrate.

Supplemental appropriations provided by the Congress in FY 1981 made possible eight exhibitions commemorating the centennial of Franklin Delano Roosevelt's birth. The most extensive of these, featuring paintings and memorabilia from Smithsonian collections, as well as objects loaned from other Institutions, is located in space opposite the George Washington show in the National Museum of American History. Additional programs include free film theater activities, lecture series and an architectural walking tour sponsored by the National Building Museum and our National Museum of American Art. These and other special events sponsored by other organizations provide a fitting commemoration of this occasion.

FY 1983 Budget Request

Now I would like to summarize and highlight our FY 1983 budget request by appropriation account.

Salaries and Expenses

The Institution's request for the Salaries and Expenses appropriation for FY 1983 totals \$144.1 million which is an increase of \$11 million over the FY 1982 base. Nearly one-half of the proposed increase, \$5.2 million, is for items that are generally beyond our control, including utilities, communications and rent, legislated pay and inflation. A further amount of \$1.1 million is sought to support the 69 positions approved by the Congress after they had been eliminated in the March 1981 budget amendment.

The remaining amount of \$4.7 million is designated for essential purposes consistent with our theme of care and maintenance of the collections. These consist of upgrading safety and security equipment, continuing the phased programs of equipping and operating the Museum Support Center and providing adequate maintenance of Smithsonian facilities.

The care and protection of the museums and National Collections is a major priority and concern. During the past year, our Office of Protection Services conducted an extensive survey of all Smithsonian museums and facilities. The results indicate that there are areas where security coverage is not adequate and opportunities exist for theft, break-ins or vandalism. Findings also show that security systems in some Smithsonian facilities are obsolete or function poorly. Some areas have only lock and key arrangements, providing minimum security; other areas of nonpublic space are not monitored at all which could lead to unauthorized entrance. To initiate a comprehensive plan designed to correct our security deficiencies, we are seeking an amount of \$1.7 million in FY 1983.

A key part of the upgraded protection program is the conversion to a proprietary alarm system that is owned and operated by the Smithsonian. This system would ensure faster response times to fire and security alarms, improve the quality of vital information transmitted from the scene and eliminate the

reliance on leased equipment. The Institution has been working toward this conversion since 1975.

Another critical security need addressed in this budget is the replacement of outmoded security equipment, including alarm and fire sensor devices for exhibit cases in public areas. Moreover, closed circuit television cameras for non-public and public areas are required as are security and alarms equipment that will deter theft and detect fire in storage areas where 90 percent of our holdings are located.

Under the category of safety, an additional \$152 thousand is proposed to augment the Institution's effort to convert potentially fire hazardous cellulose nitrate negatives to archival quality safety film.

For the Museum Support Center, we are requesting a total amount of \$6.7 million to continue the phased program of equipment purchases to initiate the move of collections and to provide basic operating capability when the Center is completed in early 1983. This represents a \$2.2 million increase over the FY 1982 base.

To date, an amount of \$5.3 million has been appropriated for storage equipment. The bidding process for this equipment which is divided into "wet" storage (collections stored in alcohol or formaldehyde solutions) and modular storage is on track. After some initial difficulty with the first bid for the "wet" storage component, a new invitation for bid will be issued on May 5, 1982. Bid invitations for the modular storage component will be issued during the summer. An additional increment in FY 1983 will permit the continued purchase of equipment in order to accommodate the schedule of collections relocations. The first of these, to be moved in 1983, will be the fluid collections from the Oceanographic Sorting Center. Presently occupying leased space, the move of the Sorting Center will free up funds that will be applied to equipment purchases. Also in 1983, collections from the invertebrate and vertebrate zoology departments and the medical program of the entomology department will be transferred to the MSC. In 1984, the schedule calls for the move of collections from the botany, entomology and anthropology departments.

With funds of \$1.75 million appropriated in FY 1981 and FY 1982, the Institution has initiated purchases of laboratory and other equipment for the scientific departments and organizations that will have components at the Center. These essential purchases will be continued with funds sought in FY 1983.

With base funding of \$187 thousand for conservation and library functions, an additional amount of \$2.3 million also is requested for basic operating expenses consisting of support costs of building and grounds maintenance and protection, conservation and fumigation supplies, and estimated utilities costs. Also included are monies for the initial relocation of the collections.

It will be necessary to begin to staff the Museum Support Center with support personnel during FY 1983. A careful examination of staffing requirements has indicated that 66 positions will be needed in FY 1983; the part-year cost of these positions is estimated to be approximately \$1.0 million. The preferred approach to meet this need is to reprogram existing vacant positions throughout the Institution to the Center. Direct contracting for Museum Support Center positions has been considered and rejected. Given the importance of this new building to the Institution, and its complex and sensitive environmental and prototype security equipment, we are convinced that it would be best to operate, maintain and protect it with our own employees at least for an adequate initial period.

At present the principal source of funds for staffing is the Museum Support Center equipment account. An amount of \$4.2 million is sought for this purpose in FY 1983. We are presently determining how much of this might be reallocated for staffing. That amount will depend on the quantity of storage and other equipment that can be purchased in FY 1982 and what the requirements are in FY 1983 and early FY 1984 for the transfer of museum collections into the Center. We anticipate, however, spending about \$785 thousand of the equipment in FY 1983 for staffing needs in addition to approximately \$250 thousand of funds designated for the move of the collections. If it is determined that

these amounts cannot be spared, we would look to other sources of funds in order to assure the timely occupancy of the Museum Support Center and efficient and effective operations.

Lastly, in the S&E appropriation, we are requesting an increase of \$650 thousand to allow our Office of Plant Services to meet its basic operating and maintenance obligations for virtually all of the physical plant.

Restoration and Renovation of Buildings

For the Restoration and Renovation of Buildings Appropriation, we are seeking an amount of \$8.45 million, a \$770 thousand increase over the FY 1982 appropriation. In keeping with the priorities of our FY 1983 request, we are firmly committed to devoting ample resources toward the maintenance of our physical plant.

During the past year, we have made considerable progress with our roof and facade repair, exterior, fire detection, utility systems, safety and security, and disabled access programs. For example, roof replacement of the American Art/Portrait Gallery Building is being completed; the first phase of a multi-year repair and restoration of the roof and exterior facade of the Arts and Industries Building is being started and repairs to the Smithsonian Institution Building's roof and gutter system are being completed. Steady progress has been made in the phased program of correcting fire detection and suppression deficiencies in the Natural History and American History Buildings. Heating, ventilating and air conditioning (HVAC) upgradings are being accomplished at the Freer Gallery of Art, where the first phase of a three year project has been completed and the second phase started; at the American Art/Portrait Gallery Building where energy conservation measures are being implemented with the replacement of aging air-conditioning equipment; and at the Museum of American History where mechanical components that are beyond repair are being replaced. A major project was completed at the American Art/Portrait Gallery Building where asbestos bearing insulation was removed and replaced with non-carcinogenic material. We are very proud of the results of the Hirshhorn Sculpture Garden improvements which include ready access for the disabled.

A portion of the monies in this account is used for projects in support of research, collections management and education at the Institution's outlying facilities. In this category, with the reprogramming approval of this Committee, we were able to award a construction contract in November 1981 for the development of a research library at the Smithsonian Tropical Research Institute in Panama.

Included in our budget justification this year is a report of physical plant condition by facility which details the Institution's restoration and renovation plans over the period FY 1983 - FY 1987 as shown in our Five-Year Prospectus.

For FY 1983, we plan to move ahead with the major phased projects on roofs and facades, utility systems, and safety and security. We also are seeking resources to correct smaller problems before they become major and to complete two projects at outlying facilities.

Specifically the major purposes for which resources are sought in FY 1983 include continuation of roof and facade renovation of the historic Arts and Industries Building, renovation of the Renwick Gallery Building's facade, and initiation of roof and facade repairs to the National Air and Space Museum. There is provision also for further upgrading of fire protection systems following the fire protection master plans of the American History and Natural History Buildings. In the utility systems category major funding is being sought to complete the HVAC renovation at the Freer and to continue HVAC upgradings at the American Art/Portrait Gallery Building, the American History Building and the Arts and Industries Building. We are requesting additional resources in this category also to initiate replacements and renovations for the components in the Natural History Building.

Under the rubric of safety and security, a major project planned for accomplishment over the next decade is the conversion to an electronic security and fire alarm system that is owned and operated by the Smithsonian. I have previously discussed the need for conversion to this system in the Salaries and Expenses portion of this statement. The monies for this project sought in the

Restoration and Renovation account will be used to fund building modifications and permanently installed equipment.

Zoo Construction

Our Zoo construction request for FY 1983 of \$1.55 million focuses mainly on renovation and repairs. We are seeking an amount of \$1 million for the repair program at Rock Creek and \$200 thousand for general repairs at the Conservation and Research Center in Front Royal, Virginia. As a continuation of Master Plan development at Rock Creek, we are requesting a sum of \$350 thousand for the planning and preliminary design of the Olmsted Walk Exhibits projects. These consist of a series of small exhibits planned for the Connecticut Avenue pedestrian and vehicle entrances, as well as along the central walkway.

Quadrangle

Culminating several years of planning, we are seeking an appropriation of \$36.5 million in FY 1983 for development of the Quadrangle --an area of 4.2 acres of land bounded by the Smithsonian Building, the Arts and Industries Building, the Freer Gallery of Art and Independence Avenue. Construction costs will be \$75 million. One-half of this amount, or \$37.5 million, is sought from federal appropriations. The other half will come from voluntary contributions of individuals, corporations, foundations, foreign governments and related organizations as well as the Institution's own resources.

The Need

In our view, there is an overwhelming need to provide a window on the National Mall for non-Western civilizations and their dynamic traditions, cultures and history. Together these civilizations encompass two-thirds of the world's population. The Quadrangle, a center for non-Western cultures, is our response to this need.

The Smithsonian's interest in these civilizations is by no means new. For many decades Smithsonian archeologists and ethnologists have worked in these areas; our Freer Gallery is the most important museum in America specializing in the art of the Near East and Asia; and recently we were pleased to accept from the Congress responsibility for the National Museum of African Art. But just at the time when an understanding of non-Western cultures has assumed new urgency, we have come to realize that our existing facilities are inadequate to meet this need: the Freer Gallery desperately needs more space for its own programs, the National Museum of African Art needs and deserves modern facilities among the other Smithsonian museums on the Mall, and the Smithsonian as a whole needs facilities in which the achievements of all non-Western cultures can be studied, discussed and exhibited.

The new center will give our 25 million visitors each year an awareness of and appreciation for the great cultural achievements of the peoples and civilizations of Africa, the Near East and Asia.

Questions

Two main questions have been expressed. These revolve around our ability to finance one-half of the construction costs from nonappropriated sources and our ability to assure that project costs will not exceed \$75 million. These are important questions and ones that we have taken very seriously. I would like to outline for the Committee the measures we are taking to assure that we will in fact raise fifty percent of the costs and that we remain within the \$75 million estimate.

Status of Fund Raising

We are firmly committed to meeting one-half of the cost of the Quadrangle from nonappropriated sources, including contributions from other governments, foreign and domestic corporations and individuals. To date, we are about two-thirds toward our goal, with approximately \$24 million in-hand or pledged from other governments, foreign and domestic corporations, foundations and individuals and the Smithsonian's Trust funds. To help assure that we meet our goal, we have engaged the firm of Brakeley, John Price Jones Inc. who, in association

with our Development Office, is helping to organize domestic and international fund raising campaigns. On the domestic front, we are very fortunate to have had a corporate campaign under the leadership of William Anderson, who is Chairman of the NCR Corporation and also former Chairman of the National Board of Smithsonian Associates.

Cost Estimating

To help ensure that the bids for the construction contract fall within the \$75 million, we have required the architectural design firm to engage an independent cost consultant firm to estimate and monitor project costs. In addition, the Institution has hired a cost consultant to prepare independent estimates. With these two independent estimates in hand, we are confident that we will have the necessary information to control the development of the project within available funding.

Status of Design

The architectural design for the Quadrangle was originally conceived by the internationally known Japanese architect, Junzo Yoshimura. Since then, the principal design partner of the Boston firm of Shepley, Bulfinch, Richardson and Abbott has developed site and building plans. These have been approved by the National Capital Planning Commission and the Commission of Fine Arts. We also have successfully completed all requirements of the National Environmental Policy Act and the National Historic Preservation Act. Using the FY 1982 appropriation of \$960 thousand, working drawings will be completed this summer which would permit a solicitation for construction bids to be initiated in October 1982.

Authorization

Authorizing legislation providing for construction funding of \$36.5 million has been introduced by the Congressional members of the Smithsonian's Board of Regents and referred to the Committee on Rules and Administration in the Senate and the Committee on Public Works and Transportation in the House. Hearings were held on April 20th in the Senate and on April 27th in the House. It is anticipated that the legislation will be reported favorably prior to May 15th.

Special Foreign Currency

Our request for the Special Foreign Currency Program is \$2,000,000 in foreign currencies. Funds for this program will be used to continue a program of grants to United States institutions where excess currencies are available primarily for research and professional training in fields of traditional Smithsonian competence.

Mr. Chairman, I and my staff will be pleased to respond to your questions and those of the Committee.

INTRODUCTION OF ASSOCIATES

Secretary RIPLEY. Thank you, Mr. Chairman. I have sitting with me at the table this morning, from right to left: Mr. Jameson, Assistant Secretary for Administration; Mr. Yellin, our Chief Budgeting Officer; Mr. Hughes, the Under Secretary; Mr. Hohenlohe, the Treasurer of the Institution; and Mr. Peyton, who is in charge of our construction and facilities planning for the Institution.

In the interest of expedition, sir, I have sent forward and you have in hand a full statement, an introductory summary of our budget this year. And I believe that probably the most sensible thing for me to do would be to say that you might like to rest on that and perhaps ask me questions directly.

Senator MCCLURE. Thank you very much, Mr. Secretary. I think that's a sign of the fact that you've been up here many times before. An experienced witness knows that we've seen the statement.

Secretary RIPLEY. Thank you, sir.

Senator MCCLURE. May I turn the microphone to Senator Hatfield, chairman of the full committee?

QUADRANGLE FUNDRAISING CAMPAIGN

Chairman HATFIELD. Thank you, Mr. Chairman. Let me ask a question first about the matter of the Quadrangle. I believe that we have listed in your budget something in the neighborhood of \$36 million to be matched on a one-to-one basis; is that correct?

Secretary RIPLEY. Yes, sir.

Chairman HATFIELD. And would you give to the committee the report on how much you have raised for that matching purpose from private resources? Do you believe the full \$36 million should be appropriated this year or on an incremental basis?

Secretary RIPLEY. Thank you very much, Mr. Chairman. We are happy to say that in contrast to last year when I testified before this committee that we had so far raised some \$3 million, as of yesterday the total that we have managed to raise in cash or in pledges comes to \$26¼ million out of the \$37½ million which we have guaranteed that we would raise to match the federally appropriated sum.

Of this, we have foreign pledges and gifts totaling close to \$8 million. We have further prospects which I will be working on during the latter months of this year in the field of some more funds, and there's no point in detailing what they will be. But our domestic pledges and gifts, together with the Institution's trust funds total at the present time about \$18 million.

We are very encouraged. And as I told the Senate Rules Committee the other day, we are positive that we will raise the necessary funds. We have been most encouraged by this aspect of the President's budget, which included the full sum of \$36½ million for this year. If need be, that figure could really represent a kind of contract authority.

We know that in this coming immediate year of 1983, we will not be needing more than a matching \$5 million of the \$36½ million. But we will be marching steadily forward, as we did with the Air and Space

Museum in the past and the Hirshhorn, with contracts in hand and with money ready to meet the exigencies as we go along the next 3 years.

So we are very, very hopeful that the committee will view this as a most positive campaign and something that we are prepared to match dollar for dollar right down to the wire.

Chairman HATFIELD. Then I understand that you have raised in excess of \$24 million in gifts.

Secretary RIPLEY. It stands at \$26¼ million as of yesterday.

Chairman HATFIELD. And so do you expect that you could raise the remaining \$10 million plus during the fiscal year?

Secretary RIPLEY. Yes; I believe that the prospects are very good that we will be able to do that.

Chairman HATFIELD. So that it would be very important, in your opinion, to appropriate the full Federal portion to be matched at this one time, rather than to do it in increments.

Secretary RIPLEY. Yes, sir, at least by contract authority because it works both ways, as you can see. If we go to our donors with the assurance that the Government is behind this project, and one of the ways of being behind it is to pledge to give us this money, then it helps me with the donors. And if we are able to assure the Government that, in fact, we have the money in hand, it helps reassure the Federal side.

Chairman HATFIELD. One last question. For the two components of this Quadrangle—namely, the African Museum and the Oriental Eastern Museum—could you indicate the approximate amount of money that has been raised from those foreign sources?

Secretary RIPLEY. Yes, sir. At the moment, pledges are in hand on the Oriental side from those countries, from countries abroad, in excess of \$7 million, approximately \$8 million. So far our funds directly for the African Museum consist of money that we know that we will secure from the sale of the houses where the present African Museum is located. Our African campaign is starting, but has not really gotten underway. We are planning to work in North Africa very soon and hope to have some foreign donations. But we have none at the present time.

Chairman HATFIELD. Do I understand you to say that a major portion of the total amount that you finally realize will be received from foreign sources?

Secretary RIPLEY. I think, sir, that it will be matched about half and half.

Chairman HATFIELD. Thank you very much. Thank you, Mr. Chairman.

QUADRANGLE CONSTRUCTION COST

Senator McCLURE. Thank you, Senator Hatfield. Mr. Ripley, last year the total cost estimate was \$48 million, of which the Federal Government was to put up half, or \$24 million. The estimated cost now is \$75 million. It's gone up \$27 million in 1 year and you haven't even started yet. How firm is the \$75 million figure?

Secretary RIPLEY. Mr. Peyton will support me, I think, in saying that during the past year, we have had ample time to restudy our estimates and we are now firm at \$75 million for the whole project in what is known as 1985 dollars. Is that right, Mr. Peyton?

Mr. PEYTON. That's right.

Senator McCLURE. So you're now firm. Will you be equally firm a year from now?

Secretary RIPLEY. Yes, sir. We will not come back to the Congress. We pledge that. We will not come back for more than the total sum of \$37½ million.

Senator McCLURE. I've heard that before from other witnesses.

Secretary RIPLEY. Yes; but you haven't heard it before from the Smithsonian. [Laughter.] I may say that our record is good in that respect, both with regard to the National Air and Space Museum and the Hirshhorn. We stood with one figure, which we demonstrated at the time that we asked for the major construction costs and we did not come back to Congress and we do not intend to do so in this case.

QUADRANGLE AUTHORIZATION

Senator McCLURE. The Senate Rules Committee has scheduled to mark up the bill authorizing construction on the 13th of May. What action has been taken in the House regarding the authorization?

Secretary RIPLEY. The House Subcommittee on Public Buildings and Grounds, chaired by Mr. Fary, passed the bill last week and sent it forward to the full Committee on Public Works and Transportation with the recommendation that it be reported to the full House.

QUADRANGLE FIRE PROTECTION, SECURITY, AND LIGHTING

Senator McCLURE. You indicate that the \$75 million is a firm figure. It seems to me that construction is rather narrowly defined, at least as I understand. It does not include fire protection, security systems, or gallery lighting. Am I correct in that assumption?

Secretary RIPLEY. I would have to ask my associates to substantiate that, Mr. Chairman. Mr. Peyton?

Mr. PEYTON. Mr. Chairman, the fire protection system would be in place, including all the support aspects of the fire protection construction, sprinkler systems and the like.

In the case of some of the security devices, we would not actually put those in place until we had full access to the building. The General Services Administration will turn the building over to us when the completion of the construction takes place and we will have fixed the magnetic locks on the doors, the motion detection devices, and the like.

I believe that answers your question.

Senator McCLURE. And the gallery lighting?

Mr. PEYTON. In the case of gallery lighting, the basic lighting would be supplied. We perhaps would want to add some track-type lighting—that's the adjustable variety that's used usually in galleries—as an equipment item.

Senator McCLURE. Well, then, the \$75 million isn't firm.

Mr. PEYTON. The \$75 million is firm, sir.

Senator McCLURE. For what you plan, but not for the completed—

Mr. PEYTON. For all construction-type items.

Senator McCLURE. You don't think that security systems or gallery lighting are part of the building?

Mr. PEYTON. The basic capability to provide those is, all the wiring, the panel boxes, the viewing devices. The items installed with simple screwdrivers, pliers and that type of tool, we view as equipment to be installed after we acquire the building.

QUADRANGLE EQUIPMENT COSTS

Senator McCLURE. What's the total estimate for those items and the other equipment that will be required?

Mr. PEYTON. Mr. Jameson?

Senator McCLURE. Mr. Jameson?

Mr. JAMESON. Mr. Chairman, we estimate approximately \$8 million for the movable type of equipment that would be installed once the Quadrangle project is completed. Those costs would be phased in in approximately fiscal years 1986 and 1987.

Senator McCLURE. It's my understanding that you plan to include those in your budget as operating costs; is that correct?

Mr. JAMESON. Yes, sir.

Senator McCLURE. Now by any normal definition, those are part of the building. I just wonder why they're excluded here.

Mr. JAMESON. Mr. Chairman, the bulk of this amount, which at this point is an estimate, is for movable items—exhibit cases, office and work space equipment and the like—which are not part of the construction project.

Senator McCLURE. Well, the furnishings obviously are not. But those things which are attached to the building become a part of the building in the normal legal sense. I don't mean to nitpick on that issue or upon that item. I'm just wondering if that was just a way of getting us to avoid adding up the total cost.

Mr. JAMESON. Mr. Chairman, the estimate that I gave you of the \$8 million is for items which would not be a physical part of the building, but equipment items that would be moved into it and, in effect, relocatable, not fixed in the building.

Senator McCLURE. Well, you can take out the windows or the doors and relocate them, too.

Mr. PEYTON. The windows and doors are part of the construction.

Senator McCLURE. I understand that, and I'm glad that you do, too. [Laughter.] I hope you never move in and out of a building and have a lawsuit with the owners or the tenants. You'd never get by with the definition that you're trying to give us.

Mr. HUGHES. Mr. Chairman, if I could comment—

Senator McCLURE. Surely, Mr. Hughes.

Mr. HUGHES. It seems to me that the items of equipment that we're talking about here are those that will ultimately be associated with the

exhibits that are in the building and they cannot effectively be installed in the building, but need to change and be moved and are separate, to that extent, from the building itself.

They are quite different, it seems to me, from the basic lighting of the building or the basic locks and so on. They must be associated with an exhibit and the lighting that is placed on it and the protection that is required.

Senator McCLURE. I understand. If the costs exceed the estimates, would private funds be generated to cover the excess?

Secretary RIPLEY. Yes, sir.

NATIONAL ZOOLOGICAL PARK CONSTRUCTION

Senator McCLURE. Let me turn to the zoo. For the National Zoo, \$1,550,000 is requested for construction and improvements. Last year's justification stated that approximately \$25 million would be required to complete the four remaining projects within the master plan. The 1983 justification shows a future requirement of \$36,400,000. What is the basis for the 45 percent increase in the cost of the remaining projects?

Secretary RIPLEY. I'd like to ask Dr. Reed to come up here and sit at the table to speak to the issue of the zoo forward budgeting, please, Mr. Chairman.

Senator McCLURE. Thank you. Mr. Reed?

Mr. REED. The forward budgeting encompasses a longer period of time and we are figuring in 15 percent as an inflation figure. In construction, some of the increase is due to the need for different types of construction design to keep up with the state of the art.

Senator McCLURE. Could you indicate for the record that which is expected inflation in construction costs and that which is change of design or change of plan?

Mr. REED. Certainly.

[The information follows:]

MASTER PLAN COST ESTIMATES

There are four remaining projects in the master plan, as projected in the fiscal year 1983 request. Of the \$11.4 million cost increase estimated for fiscal year 1983 compared to last year's justification, \$10.4 million is attributable to inflation. This is reflected in a 4-year delay in starting the aquatic habitat and the health and research hill projects; a 2-year delay for the parking facility and a 1-year delay for the entranceway and Olmsted walk exhibit. An additional construction cost of \$1 million is for design of phase 2 and updating the design of phase 1 of the aquatic habitat exhibit in fiscal year 1985.

AQUATIC HABITAT FACILITY

Senator McCLURE. Testimony presented to the committee last year indicated that the aquatic habitat facility, which was then estimated to cost a total of \$9,800,000 would be scaled down. I understand that conversations with the staff indicate that it's still the plan to scale it down. But, in fact, the 1983 justification shows that the current estimate is \$17,500,000, as contrasted to a project before being scaled down of just slightly over half that sum.

Secretary RIPLEY. May I speak to that, Mr. Chairman?

Senator McCLURE. Of course, please.

Secretary RIPLEY. We are still anxious to continue scaling down the aquatic habitat.

Senator McCLURE. Well, if you keep on scaling it down, we won't be able to afford it.

Secretary RIPLEY. That is quite right. [Laughter.] If we keep on scaling it down, we'll have to depend on the Baltimore Aquarium.

Senator McCLURE. I'm concerned about it because the scaled-down facility is almost twice as much.

Secretary RIPLEY. That's right. It seems to me that the energy consumption inherent in such a sophisticated building would require us to continue to study this proposal in depth and insure a reasonable budget for the future.

Senator McCLURE. Again, Mr. Reed, if you could give us some reason why a scaled-down facility doubles in cost, I'd be intrigued.

Secretary RIPLEY. Dr. Reed, would you like to answer that one?

Mr. REED. It's a very difficult one to totally explain because of the design phase that we've been going through, and we only have the first part of the design completed. It was originally planned for a two-phase construction.

The cost of the equipment of the building rises, despite the fact that we had eliminated and scaled it down. Also, moving into future years, the inflationary figure had to be added into it.

Senator McCLURE. Again, will you give us for the record a breakdown between the escalation in costs and the costs associated with the change?

Mr. REED. Yes, sir.

Senator McCLURE. It seems impossible to me that increased construction costs, even though you may have estimated them at 14 or 15 percent annual inflation, can explain the doubling of cost of a scaled-down facility. But if you would provide that for the record, please.

Mr. REED. We'd be delighted.

[The information follows:]

CONSTRUCTION COST INCREASES

The fiscal year 1983 budget request projects a total cost of \$17.5 million for phase 1 and phase 2 of the aquatic habitat exhibits compared to the fiscal year 1982 estimate of \$9.8 million. The \$7.7 million increase includes (a) \$1 million for updating the plans for phase 1 in fiscal year 1985 which will have been on the shelf for over 3 years and for the design of phase 2. The state of the art in water quality design may change during this time and we must keep pace with the changes. The design phase for the scaled-down plan is complete and includes a two module facility for manatees and penguins along with basic educational signage. (b) \$4.5 million for inflation due to the construction of phase 1 in fiscal year 1986. The original estimate of \$6 million for construction costs in fiscal year 1982 with no design changes, would be inflated approximately 15 percent per year escalating the cost to total \$10.5 million. (c) \$2.2 million for inflation increasing the cost of phase 2 of the exhibit to \$5.5 million which will be used to fund the final module for sea otters and an expanded educational module in fiscal year 1986. The fiscal year 1982 budget request estimated this phase to be funded in fiscal year 1983 at \$3.3 million.

ZOO PARKING FACILITY

Senator McCLURE. In the past year, the estimated cost of the parking facility has escalated by \$1.5 million and the start of construction has been delayed by another 2 years. Even with this 2-year delay, the estimate of \$2 million in parking fees which will be used to offset the construction costs has not changed.

If we are going to wait an additional 2 years, why isn't there some increase in the parking fee?

Secretary RIPLEY. We discussed this yesterday in our own meeting, Mr. Chairman, and I feel sure that this is an underestimate. I personally am very anxious to advance the parking construction because it would save valuable space which could be well used for purposes of visitation and tourism in the zoo.

I think there has been slippage in terms of the estimate of receipts, merely slippage and not firm estimates.

Senator McCLURE. I wonder if you could give us an updated figure both as to the construction time and the parking fees?

Secretary RIPLEY. We'd be very happy to do that, Mr. Chairman.

Senator McCLURE. Thank you.

[The information follows:]

PARKING FACILITY CONSTRUCTION

Due to the 2-year delay in the planned construction of the parking facility, now scheduled for fiscal year 1988, the construction cost estimate is \$13 million. The cost increase of \$1.5 million compared to fiscal year 1982's budget request estimate is attributed to inflation. We currently have on hand, in our parking revenue account, nearly \$1.3 million of the total construction cost. It is anticipated that by fiscal year 1988 the parking revenues plus interest will provide over \$3 million toward the total need of \$13 million.

RESTORATION AND RENOVATION OF BUILDINGS

Senator McCLURE. Most of the repair and renovation projects seem to be coming along within earlier projections. Two notable exceptions, however, are the roof and exterior renovation costs of the Arts and Industries Building, the estimates for which are up 140 percent, and the roof, facade, and terrace repairs at the Air and Space Museum, which are up 100 percent.

Why have the costs for work at these two facilities gone up so much?

Secretary RIPLEY. Thank you, Mr. Chairman. I think that Mr. Peyton can answer this directly.

ARTS AND INDUSTRIES BUILDING EXTERIOR RENOVATION

Mr. PEYTON. In the case of the Arts and Industries Building, the present cost as projected in the documents that you have is based upon completed work by the architectural planner we have engaged to complete the necessary contract documents.

However, even in a more recent development within the last 30 days, we find that one-fourth of the Arts and Industries project we can do for approximately \$2 million. Setting the question of inflation aside for a moment, the total cost of the Arts and Industries Building is now projected for \$8 million.

Senator McCLURE. Who did you hire to make your estimates? And have you paid him?

Mr. PEYTON. The architect engineer and our own staff felt that the estimate that was projected was a correct one.

Senator McCLURE. If I understand, last year you said that the total cost over 1982-86 would be \$5 million. This year you're telling us it's \$12 million over 1983-87. And now you're telling us it's \$8 million.

Mr. PEYTON. The current figure is \$8 million.

Senator McCLURE. Is that for the total?

Mr. PEYTON. Yes, sir.

Senator McCLURE. Well, I suppose that you're as perplexed as I am as to how it can fluctuate from \$5 to \$12 to \$8 million in a period of less than 12 months.

Mr. PEYTON. Well, the explanation that I would offer, sir, is that this, as well as most of the Smithsonian restoration and renovation projects, are virtually one of a kind. There is a great deal of handwork involved and exploration to determine actually what needs to be done virtually on a square-yard by square-yard basis.

We do this in the case of this particular project by photographing the facade of the building and marking up the drawings to show the areas in which bricks must be raked out by hand and repointed to correct for the old mortar which was part of the original building. It's a hand-done job, so to speak.

Senator McCLURE. I understand your saying it's a hand-done job, but I still don't understand how it fluctuates so much in the estimates.

Mr. PEYTON. Well, it fluctuates because the initial estimate was developed on the basis of what we thought would be the cost per square foot. In the final analysis, detailed quantity take-off must be made to determine what the actual cost is. The contract that we're about to award in the next 10 days represents the latter; namely, the contractor and our own staff have sat down and counted on an item-by-item basis so many feet of gutter to be replaced, so many bricks of a special character that have to be replaced in the building, so many square feet of roofing, so many square feet of window pane, so many gallons of paint, so many hours of work.

NATIONAL AIR AND SPACE MUSEUM RENOVATION

You also asked about the Air and Space Museum. We made some early estimates as to what we thought it might cost to correct some difficulties that we have incurred there. There is some water in the garage level of the basement and we do have some cracks in the pavement and we have had some leaks around some of the skylights and other similar difficulties.

To insure the recognition of anticipated problems, these were placed in our 5-year planning document on the best price that could be developed at the time.

Since then we have engaged a specialist in waterproofing and he has conducted a comprehensive study. He has indicated some solutions that he feels we should consider in moving ahead toward correction of the

problems. Some of the solutions that he has developed are very expensive. They're also very disruptive considering that this is our most popular museum, open 7 days of the week. And I believe that for some of the solutions that he recommended, we must find some compromise measures.

We have put down the costs of his recommendations and in the coming months, we will begin to explore them in further depth and just see what we can do. I would expect that the numbers that we have in our 5-year plan could be refined as we move ahead.

Once again, as I said in the case of the Arts and Industries Building, these are really one-of-a-kind types of projects and they're aggravated—if that's the correct word—by the fact that we maintain the environment in our buildings around the clock, 7 days a week, and, of course, as I said before, we're open 7 days a week.

Senator McCLURE. Well, I do note that in 1986 and 1987 costs, the estimate has doubled. I'd be concerned that you do pursue that and attempt to find out why those estimated costs would double.

Mr. PEYTON. Well, the purpose of our 5-year plan is to identify some problems that will need to be corrected. In many cases, in the out-years, we don't really have a fully refined estimate of what those corrective measures will take.

ENERGY CONSERVATION

Senator McCLURE. More than 25 percent of the funds in the restoration and renovation of buildings account are spent for upgrading of utility systems. Have these expenditures resulted in any quantifiable energy savings?

Mr. PEYTON. Considerable energy savings have been identified as a result of upgrading our utility systems. I would like to provide the details for the record.

[The information follows:]

UTILITIES COSTS SAVINGS

Other energy conservation measures coupled with limited systems upgradings completed to date have already resulted in an estimated utilities cost avoidance of \$2 million. The comprehensive HVAC studies and energy audits currently being performed for most of our buildings are identifying redesign or replacement needs of existing HVAC systems and pointing out energy conservation opportunities. Projected utilities costs savings are being calculated for each recommended upgrading. Once these changes are made, it is estimated that construction costs will be recouped somewhere between 1 to 5 years through utilities cost avoidance.

RESTORED POSITION FUNDING

Senator McCLURE. I have some additional questions which I will submit for the record with respect to postage, telephone costs, and utilities, and there may be some others in that category.

But I would like to switch a moment to administration. As part of the fiscal 1982 budget revisions, 96 positions were cut from the Smithsonian's request. Thirty-six of those were originally proposed as new positions and 60 slots were vacant at the time. Funds were added to

restore 69 of these positions. But the 4-percent reduction precluded the Smithsonian from filling these positions.

In the fiscal 1983 budget, funding is requested in the amount of \$1,125,000 to fund the cost of these 69 positions. On the average, how long have the 60 positions been vacant?

Secretary RIPLEY. I think Mr. Yellin can answer this question directly, Mr. Chairman.

Mr. YELLIN. On the average, Mr. Chairman, these positions have been vacant for over 1 year.

Senator McCLURE. Of the 60 vacancies, how many fall under protection services?

Mr. YELLIN. There are eight, sir, that were sought for the protection services.

Senator McCLURE. If funds were provided only to cover the costs of the vacancies rather than adding the new positions, what would be the cost savings?

Mr. YELLIN. I believe it would be approximately one-quarter of our request, but I would like to follow up on that and submit it for the record.

Senator McCLURE. If you would do so, please.

[The information follows:]

COST OF FILLING VACANT POSITIONS

The cost of filling only the vacant positions allowed by the Congress in fiscal year 1982 would be \$845,000, a savings of \$280,000 from the Institution's request of \$1,125,000.

MUSEUM SUPPORT CENTER STAFFING

Senator McCLURE. How does the \$1,125,000 request for the 69 positions compare to the actual annualized cost once all positions are filled?

Mr. YELLIN. That would be the same amount, sir.

Senator McCLURE. So this is assuming that they're filled for the entire fiscal year.

Mr. YELLIN. Yes, sir.

Senator McCLURE. It appears that within the next several years, the Smithsonian will have significant requirements for new positions associated with the Museum Support Center and the Quadrangle. Have you an estimate of the number of new positions for these two activities which will be required in the next 5 years and the estimated salary costs?

Secretary RIPLEY. Mr. Jameson has these figures, Mr. Chairman.

Mr. JAMESON. For the Museum Support Center, Mr. Chairman, we estimate approximately 100 new positions, of which we will need roughly 66 in fiscal year 1983 on a part-year basis. The cost of those positions in fiscal year 1983 will be about \$1 million. And the full-year cost of the 100 positions will be on the order of approximately \$2.1 million when the building is fully operational by approximately fiscal year 1984.

Senator McCLURE. Now that \$2.1 million is \$2.1 million per year at the end of that period?

QUADRANGLE OPERATING COSTS

Mr. JAMESON. Yes, sir. For the Quadrangle, we are predicting that our operating cost of the Quadrangle will be on the order of \$28 million when the project is fully operational. That will be over the period of about fiscal year 1987, fiscal year 1988.

QUADRANGLE STAFFING

I would like to note for the record that a little better than half of that figure is represented by trust funds for operating cost of the project. We are estimating, and this, indeed, is an estimate, several years off of realization, about 170 additional positions for the Quadrangle to add to the current base, which is heavily trust-funded, of about 140 positions represented by the organizational units that would go into that project, the resident and national associates programs, the traveling exhibition services.

I would estimate, using our current average salary costs, that those 170 jobs would cost on the order of about \$3½ million.

Senator McCURE. The \$28 million was total operating expenses?

Mr. JAMESON. Yes, sir, including the estimate that I gave you for personnel costs.

Senator McCURE. And again, I will submit some questions for the record with respect to the operating costs for the Museum Support Center.

MUSEUM SUPPORT CENTER STORAGE EQUIPMENT

In fiscal years 1981 and 1982, a total of \$5,276,000 was provided for collections storage equipment for the Museum Support Center. How much of that has been obligated to date?

Secretary RIPLEY. Mr. Perrot, who is our expert on these matters, and who is awake at this time—I believe he got in late last night from abroad—is here to speak on the question of collections management equipment. He's the Assistant Secretary for Museum Programs.

Senator McCURE. Thank you.

Mr. PERROT. Mr. Chairman, we expect to be issuing tomorrow a bid solicitation, spending the funds that were appropriated in 1981. For 1982, the funds have not yet been committed. We expect that they will be committed in the latter part of this fiscal year.

The reason for the delay, Mr. Chairman, is that we are proposing something entirely new in the museum world in the matter of storage equipment. Complexities have arisen in design as well as in the opinions of contractors who have been consulted and who have bid previously on the project.

You will recall from the record, that bids were received some months ago which were in excess of the amount which was available. These bids were rejected on the basis that sufficient funds were not available, in addition to the fact that the contractors did not fully understand what we were seeking.

Therefore, the designs have been revised and are being submitted for

bid tomorrow. The whole matter is being handled by the General Services Administration, who has been very helpful in this matter, but there have been delays. We expect, however, that by the end of this fiscal year, the project will be moving.

If I might add a footnote to this, anticipating a question that might be asked, the funds that we asked for in 1981 are essential. Those we have in 1982 are essential, as are the ones that we are asking for in 1983, because of the economies of scale. What we are proposing is new and complex. The cost will be lower if we can maintain the economies of scale; that is, maintain the budget in the fullest amount.

Therefore, we consider this the highest priority for the Museum Support Center and the Institution.

NEW BIDS FOR MUSEUM SUPPORT CENTER EQUIPMENT

Senator McCLURE. From your conversations with suppliers, do you expect the new bids to be successful?

Mr. PERROT. We have every anticipation of this, yes, sir.

Senator McCLURE. In view of the delays experienced in obtaining the equipment, can we delay appropriating the \$3,157,000 requested for 1983?

Mr. PERROT. Mr. Chairman, we would strongly recommend against this since we are hopeful that we can, having this amount appropriated, invite contractors to provide a better bid. Since the matter is complex, requiring special equipment, special parts, economies of scale would not be achieved. Therefore, we feel very strongly.

Senator McCLURE. When do you expect the bids to come in on the solicitation?

Mr. PERROT. We expect to have the bids in July for the first phase and be able to make an award in August and commence by the end of the fiscal year.

ADDITIONAL COMMITTEE QUESTIONS

Senator McCLURE. Thank you, Secretary Ripley, and I thank you and all of your people for your testimony today. There will be some additional questions which I will submit and others may also submit some further questions. We would ask that you and your staff respond for the record.

Secretary RIPLEY. Thank you very much, Mr. Chairman.

Senator McCLURE. Thank you, sir.

[The following questions were not asked at the hearing but were submitted to the Department for response subsequent to the hearing:]

ADDITIONAL COMMITTEE QUESTIONS

Quadrangle Construction

Question: Current Federal funding for the staff and programs which will be housed in the new facility is under \$3 million annually. What are the staff and program costs associated with these programs when the building is completed?

Answer: Based on planning that has taken place by the activities that will be located in the Quadrangle, it is forecast that their annual operating budgets will total in the range of \$26 to \$28 million expressed in the fiscal years 1987 - 1988 dollars when the Center for African, Near Eastern, and Asian Cultures are operating at a full programmatic level. Of this total, approximately sixty percent of expenses will be met with Trust funds. Present budgets of the activities that will be relocated to the Center total almost \$14 million, most of which are Trust funds. Total staffing of the Center is estimated at about 319 persons of whom about 146 are presently budgeted. The increase of some 173 is composed primarily of positions to staff the new Near Eastern and Asian facility (27), to augment the program of the Museum of African Art (15), to provide adequate security for the overall Center for day and evening activities (72), and to maintain, clean, and operate some 363,000 square feet of building space and over 4 acres of grounds (56).

Question: Construction is scheduled to take about three years. Why can't the Federal share be funded in installments rather than a lump sum?

Answer: In our view the most desirable course of funding for the Quadrangle would be to receive the full lump sum amount of \$36.5 million that we have sought as the Federal share in our FY 1983 authorization and budget requests. A lump sum appropriation would enable us to get the best possible price and accept a single competitive bid at a time when we believe market conditions will be particularly favorable, namely, January 1983. It would also assure uninterrupted progress on this unique project. Furthermore, because construction will be 95 percent underground and require substantial intrusion into the water table, as well as special foundations due to the proximity of three landmark buildings which have only rudimentary foundations, we consider it essential to have a single source of liability throughout the entire period of construction, not only for the new building, but to assure also the structural integrity of the Smithsonian Institution Building, the Freer Gallery, and the Arts and Industries Building.

The receipt of appropriations in installments would require us to rebid the project, subject us to the possibility that a second contractor would replace the first in FY 1984, and, in all likelihood, drive up the total cost. Moreover, under this method, a single source of liability may not be possible.

Recognizing the need of the Congress to be assured that Trust funds are available to match the Federal contribution, we have determined that it would be possible to expend equal amounts of Trust funds and Federal funds on a dollar-for-dollar basis as the project progresses.

Question: Approximately half of the required non-Federal funds have been raised. Should the Smithsonian encounter difficulties in raising the balance of the funds, what would be your position--would you expect Federal appropriations to make up the difference?

Answer: No, the Institution would not seek additional Federal appropriations to make up the difference.

Uncontrollable Increases

Postage Costs

Question: \$5 million, 529 thousand in the Salary and Expenses account is listed as "uncontrollable increases." Among the items is \$251 thousand to cover the increased cost of postage. In fiscal year 1982 you requested, and were granted, an increase of \$185 thousand for postage. The postage rate increase last year was 3¢ and the March increase was 2¢. Therefore, the funds requested

for fiscal year 1983 would provide increased postage costs for more than twice the volume of mail as would the '82 request. What is your base for postage costs and what is your approximate annual volume of mail?

Answer: The postage rate increase last year of 3¢ and the March increase of 2¢ was for first class domestic letter mail. This type of mail accounts for only approximately 30 percent of our volume and costs. Costs for other classes of mail, such as 3rd class bulk, packages and foreign mail, which comprise the major portion of our volume and costs, also have risen steadily due to sharp rate increases. Rate increases imposed on foreign mailings had the single most significant effect on Smithsonian postage costs, raising them by 28 percent. The fiscal year 1983 requested increase of \$251 thousand would bring base resources in line with projected costs for this period. A comparison of base and actual postage costs over fiscal years 1981 - 1983 follows:

	<u>Postage</u> (000s)		
	<u>FY 1981 Actual</u>	<u>FY 1982 Estimate</u>	<u>FY 1983 Estimate</u>
Base	\$ 649	\$ 834	\$1,085
Costs	975	1,100	1,200 /1

/1 The Institution is taking steps to reduce this figure to the budgeted level of \$1,085,000. Some of these steps include: (1) reclassifying mailings eligible for lower classes of service; (2) reducing the size of our mailing lists; (3) restricting the use of "special services such as registered and express mail; (4) sending domestic packages at parcel post rate; and (5) restricting the use of "Air Mail" service for international packages.

The Institution does not maintain "actual" mail volume statistics. Approximately 60 percent of the postage costs that are determined by the Postal Service are based on two sample counts taken every year of all outgoing mail sent from the Smithsonian's central mail services center. Each mail count lasts one week and the figures vary depending upon when the counting occurs. Using the sample count, the volume and cost are "averaged" out by multiplying the number of pieces that are counted by 52 weeks by the rate for each of the various sizes and classes. The remaining 40 percent of the postage costs are due to bulk mailings (contractor mailings, reprints, books and other printed bulk matter) and are added to the costs that are determined from the sample counts. The combined figures, sample plus bulk costs, represent the total annual Smithsonian postage costs.

Telephone Costs

Question: An increase of \$763 thousand is requested for telephone costs. The Smithsonian was granted an increase in fiscal 1982 of \$275 thousand for telephone costs. Since fiscal 1981, your telephone costs have increased by almost 90 percent -- from \$1 million, 208 thousand to \$2 million, 246 thousand. What have been the actual percentage increases in the rates from fiscal 1981 projected through fiscal 1983?

Answer: Rate increases of 21 percent (or \$157 thousand) and 30 percent (or \$281 thousand) were granted to the C&P Telephone Company for local telephone services in May 1981 and May 1982 respectively. In June 1981, the General Services Administration instituted a rate increase of 52.9 percent (or \$281 thousand) for the operation of the Federal Telecommunications System service. In addition, the Institution's FY 1983 estimate has been adjusted by approximately \$250 thousand to take into account rate increases anticipated as a result of the impending separation of local telephone companies from the centralized Bell Telephone System.

A minor part of the cost increase (\$125 thousand) is attributable to a 9 percent growth in the number of telephone sets between fiscal years 1981 and 1983.

Utility and Fuel Oil Rate Increases

Question: An increase of \$686 thousand is requested for utility rate increases and for fuel oil rate increases. In fiscal 1982, the Smithsonian

received an increase of \$1 million, 440 thousand for these items. In view of the declining world price of oil, it appears that perhaps the '82 increase was overgenerous. Realizing that this budget was prepared months ago, do you still feel that these increases are required in the amounts justified?

Answer: Current estimates for electricity, steam, gas and fuel oil indicate that our fiscal year 1981 costs will provide approximately \$700 thousand to a \$1 million surplus in these accounts. The major reasons for this surplus have been conservation efforts promoting reductions in consumption, favorable weather patterns, the elimination of late opening hours in most of our buildings, and the declining world price of oil. However, an uncertainty is costs associated with the Museum Support Center. Earlier than scheduled Smithsonian occupancy or other factors make it difficult to forecast what our expenses will be in this new and untested facility. Also because we can not predict with any reasonable accuracy what the weather conditions will be or when oil prices will start to rise in the coming months and at what rate, we think that the current request for fiscal 1983 is a prudent one. If these events occur more slowly than projected in our request, we will seek only minimal additional funds for the utilities account in FY 1984.

Inflation

Question: Beginning with fiscal year 1981, the Smithsonian has annually requested an inflationary allowance based on seven percent of the nonsalary items in its budget. That allowance totals \$1 million, 700 thousand for fiscal year 1983. How did you cover these cost increases prior to fiscal year 1981?

Answer: Prior to FY 1981 OMB did not allow inflationary cost increases to be sought. These were either absorbed in the bases of the museums and bureaus causing a reduction in the quality and quantity of Smithsonian programs, or sought separately as program increases. For the preparation of the fiscal year 1981 budget, OMB supplied pricing guidelines which acknowledged the effects of inflationary pressures and permitted the Smithsonian to request an inflationary increase of up to 10.3 percent of nonsalary object classes of expenses for this purpose. Accordingly, the Smithsonian requested a percentage increase of seven percent of the total nonsalary object classes of expenses for inflationary cost increases in FY 1981 and in subsequent budgets. These requests have been modest given the large inflationary cost increases that have been fully detailed in our budget justifications.

Museum Support Center Conservation Training Program

Question: Once the Museum Support Center is completed, it is planned to initiate a conservation training program "to fill an essential national need." The first class is to be admitted to the training program in fiscal 1983. Who will teach the classes and who will be admitted to the program?

Answer: The development of a conservation training program at the Museum Support Center is a high priority. However, it is unlikely, at the moment, that more than a pilot program can be initiated by the latter part of fiscal year 1983. Under present and foreseen circumstances it is expected that by 1983 the program will have a director and that the faculty will consist of Smithsonian conservation personnel as well as consultants from other training centers. The curriculum is being developed in cooperation with area universities and it is anticipated that members of their staff also will be participating. As arrangements are developing, the University of Maryland will be particularly involved in view of its long-standing interest in conservation, related matters and the location of the Support Center in the State of Maryland. Admission to the course will be governed by requirements being jointly established by the Smithsonian and the cooperating universities.

Question: What will be the cost to the participants?

Answer: The schedule of fees for participating in the course has not yet been developed. It has been found by other conservation training organizations such as the University of Delaware, New York University, Cooperstown and Harvard, that full or partial subsidies are required to obtain high quality applicants. The financial rewards in conservation are modest and, although they

are improving, it is unrealistic to expect any but the smallest percentage of students to be able to underwrite these specialized studies on their own.

Question: What is the annual estimated cost to the Smithsonian of conducting this training program?

Answer: Since the curriculum is still in process of being developed, it would be premature to estimate the scope of these costs.

Question: When the program is in full operation, what will be the size of the classes?

Answer: Due to the highly specialized nature of conservation and the need for a one-to-one involvement between student and instructor in the hands-on aspects of the training, it is expected that in the first year no more than four to six students will be accepted, the number gradually rising to between fifteen and twenty.

Question: For the record, please provide a listing of other institutions which offer a comparable training program.

Answer: In developing this program, the Institution and the associated universities have been intent in avoiding unnecessary duplication of the areas of training offered by the existing programs, which are at the Conservation Center of the Institute of Fine Arts, New York University; the University of Delaware in cooperation with the Henry Francis DuPont Winterthur Museum; the Fogg Art Museum of Harvard University; and the Cooperstown Graduate Program at Cooperstown, New York. The Institution's program will concentrate heavily on training for conservation of archeological, ethnological, textile, paper and furniture materials. In all of these museum collection areas, there is a great need for trained personnel and this need is not currently being satisfied by any existing program.



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